ABSTRACT

A tool is employed in conjunction with alignment, depth, and level detectors. The tool can use all or some of these detectors. The alignment detector provides an orthogonal laser line grid on an incident surface when the detector has a predefined relationship with the surface. The depth detector emits two sets of parallel laser planes that converge with each other. When the laser planes impact on an incident surface two sets of lines are formed. The laser lines from one laser plane set move closer to the lines from the other laser plane set as the depth detector moves closer to the surface — showing changes in depth or distance. The level detector employs two converging laser planes. An operator positions the level detector above an incident surface, so the laser planes' line of intersection appears on the surface if the surface is level. If the surface is not level, lines separate from each laser plane appear on the surface — signaling the need for a level adjustment. Some versions of the tool have the ability to detect their own orientation and make adjustments based on the orientation. Example tools include nail guns, jigsaws, circular saws, routers, and drills.